

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 89-163

SITE CLEANUP REQUIREMENTS FOR:

KAUFMAN AND BROAD, SOUTH BAY, INC.,  
and ARMAND KUNDE  
DOUDELL PROPERTY  
MILPITAS, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. SITE DESCRIPTION The Site, commonly referred to as the Doudell property, consists of an undeveloped 100-acre parcel located on filled wetlands south of Dixon Landing Road approximately 500 feet east of Interstate 880 in Milpitas (see Figure one). The Site is bounded by Penitencia Creek on the west, Berryessa Creek on the south, the right-of-way for Southern Pacific and Western Pacific Railroads on the east, and Dixon Landing Road on the north. Sunnyhill Outfall Creek crosses the center of the property, separating the northern and southern portions of the Site.
2. REGULATORY STATUS Kaufman & Broad, South Bay Inc. (K&B) and Armand Kunde are hereinafter referred to as dischargers. Armand Kunde is the current Site owner. Kaufman & Broad, South Bay Inc. (K&B) recently purchased a portion of the southern half of the site and proposes to purchase the remaining areas of the site and develop the site with single family residences, dedicated streets and a 14-acre park (see Figure Two). K&B is not responsible for disposal of any of the chemicals on the site and voluntarily stepped forward to conduct the investigation and cleanup. K&B is named as a discharger because of site ownership and to facilitate site cleanup. Kunde and K&B are identified as dischargers for the purposes of this Order. Trammel Crow (TC), of Foster City, has an option to purchase a portion of the northern-most quarter of the Site, on which it plans to develop apartment buildings. Since potential soil pollution is limited to other portions of the site, and TC is not responsible for disposal of any of the chemicals on the site, TC is not named as a discharger.
3. SITE HISTORY The southern part of the Doudell property, below Sunnyhill Outfall Creek, has been operated by the owner as a Class III sludge treatment and disposal facility for disposal of water treatment sludge generated by the Santa Clara Valley Water District (SCVWD) under permit by the Regional Board.

Transport of waste sludge to the Site was by Diamond Tank Lines and Transportation, Inc. (Diamond), a subsidiary of Doudell Trucking Company. Doudell is engaged in the business of transporting property by motor vehicle for compensation. Diamond was licensed in 1974 by the State as a liquid waste hauler.

According to Regional Board records, portions of the property were used by the owner for illegal disposal of more than 500 55 gallon drums of Class I wastes.

4. ENFORCEMENT HISTORY The Regional Board has taken both past and present regulatory actions in regard to the Doudell Property. CAO 76-010 was issued against the then identified owners and operators, Doudell and Diamond, on March 29, 1976, to cleanup and abate all Class I wastes illegally disposed of on the property. The Class I wastes consisted of washings from magnetic tape manufacture at Memorex Corporation in Santa Clara as well as the contents of several napalm bombs. A representative of Memorex Corporation reported at that time that the washings were predominately iron oxides in solid granular form with liquid solvent, methyl ethyl ketone (MEK).

In a letter dated April 30, 1976, Diamond informed the Regional Board Executive Officer that the owners had complied with CAO 76-010 in that all buried material was removed and taken to Richmond Sanitary Landfill, Richmond, California and disposal of all Class I materials had been abated. The CAO was rescinded by letter dated June 26, 1978.

In July, 1976, Waste Discharge Requirements were adopted to regulate the Class III sludge treatment and disposal facility for sludge from SCVWD water treatment plants. The sludge treatment and disposal facility occupies the southern 45 acres of the property. Revised Waste Discharge Requirements, in Order 88-120, were adopted in July, 1988.

In September 1988, K&B discovered buried 55 gallon drums containing MEK, acetone, benzene, toluene, xylene and ethylbenzene in the western portion of the site. A site investigation was begun by K&B to determine if other drums were located beneath the Site, to determine the extent of soil pollution and to evaluate whether groundwater was significantly affected by site activities. In January, 1989, Cleanup and Abatement Order 89-001 was issued to the owners, Doudell Trucking Company and Diamond Tank Lines and Transportation, by the Executive Officer to obtain information about past disposal and cleanup of Class I wastes. Order 89-001 remains in effect.

5. SITE GEOLOGY The site is located on a low lying bayland plain on what was originally wetlands. This "reclaimed marsh" has

been filled to elevations varying from 5 to 10 feet above sea level and slopes to the west.

Shallow soils and underlying sediments, to depths of 9 to 23 feet, are estuarine clays commonly referred to as bay muds. These clays are characterized by their high density and plasticity. The sediments below the bay muds consist of more permeable sands and silts which are thickest near Penitencia Creek and thin toward the south and east.

6. SITE INVESTIGATION An initial site investigation to determine the extent of soil pollution and to evaluate whether groundwater had been affected by site activities was begun in fall of 1988, after the initial discovery of buried drums. Results of the initial soil gas and soil sampling identified areas with soil pollution ranging up to 8,000 ppm (0.8 percent by weight) of total xylene and MEK.

Soil gas surveys and soil-vapor probe surveys, conducted in 1989, were carried out over the entire site. Grid spacings of 50 or 100 feet were used for the soil gas to determine areas of soil contamination and 15 or 25 feet grid spacings were used for the soil vapor probe to further define these areas. A total of 966 soil gas samples and 5,956 soil-vapor probe samples were analyzed in the investigation.

Magnetometer surveys were conducted on all accessible areas for detection of buried drums. Aerial photographs taken from 1957 through 1989 were analyzed for signs of activity denoting potential surface disposal. Anomalies identified by both studies were followed up with exploratory trenching and excavation of all drums, debris and polluted soil. Other parts of the Site that are now inaccessible, such as beneath the westernmost sludge ponds, need to be investigated to determine if soil or groundwater pollution is present.

Twenty (20) shallow monitoring wells were installed on the site to monitor groundwater quality and flow. Shallow groundwater quality is found to be impacted by tidal inflow and recharge from Penitencia Creek, giving it a high total dissolved solids (TDS) content and rendering much of the shallow groundwater above the 3000 TDS threshold of State Board Resolution 88-63, which defines sources of drinking water. In general, monitoring data indicate that groundwater has not been significantly impacted by solvents and that organic pollution is restricted to the bay muds overlying the shallow groundwater. Organic pollutants were detected in two wells at low concentrations. In 1988 0.150 ppm of MEK was detected in MW-13, located in the center of the Site north of Sunnyhill Outfall Creek. The well is currently inaccessible due to stockpiled soil. Pollutants have not been detected in monitor wells placed downgradient of MW-13. Toluene was

detected at 0.007 ppm in a monitoring well in the southeast corner of the Site; 0.100 ppm is the drinking water standard.

Surface water in Berryessa and Lower Penitencia Creeks was sampled and analyzed for organic chemicals. Two volatile organic chemicals (VOCs) were detected at the sampling point in Lower Penitencia Creek; 1,1,1-trichloroethane (TCA) and Freon 113 at 0.005 and 0.002 ppm, respectively. These may represent background values and further sampling and analysis will be conducted to verify that these constituents are from an offsite source.

7. CLEANUP OBJECTIVES Inaccessible areas of the site will be investigated to determine whether soil and/or groundwater pollution is present.

Final cleanup levels and goals for polluted groundwater shall be background water quality if feasible, but shall not be greater than the DHS drinking water Action Level (AL) or Maximum Contaminant Level (MCL), whichever is more stringent. If an AL or MCL has not been established, the level shall be in accordance with the State Water Resources Control Board's Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California", based on an evaluation of the cost, effectiveness and a risk assessment to determine affect on human health and the environment, and shall be approved by the Board. State Board Resolution 88-63, "Definition of Sources of Drinking Water", may be applied in determination of final cleanup goals. These levels shall have a goal of reducing the mobility, toxicity, and volume of pollutants.

The cleanup goal for polluted soils is 1 ppm for total VOCs. Based upon a risk assessment, a proposed soil cleanup level for the site of 5 ppm total VOCs is acceptable. Polluted soil has been remediated in all accessible areas to less than 5 ppm total VOCs.

The dischargers shall optimize reclamation of any groundwater extracted as a result of cleanup activities, with a goal of 100% reuse, or pursue discharge to a local Publically Owned Treatment Works. The dischargers shall not be found in violation of this Order if documented factors beyond the dischargers' control prevent them from attaining this goal, provided they have made a good faith effort to attain this goal.

8. SITE CLEANUP ACTIONS The site investigation identified a total of ten areas containing clusters (five or more drums) of buried 55 gallon drums, 13 additional areas with drum fragments, and about 25 nonoverlapping locations where waste was disposed directly onto the ground surface from tank

trucks. The principal areas of buried drums and soil pollution were in the southwest corner of the northern half of the site, next to Sunnyhill Outfall Creek and in the southwest corner of the site. Surface disposal locations are scattered throughout the northwest, central and southern areas of the Site. All buried drum and surface disposal locations in the accessible areas of the site have been remediated. A total of 620 drums of waste plus drum fragments, and 8,500 cy of highly polluted soil, have been excavated and removed to an appropriate disposal site.

Polluted soil has been remediated to less than 5 ppm total VOCs, which is the practical soil detection limit for MEK. Polluted soil which totals about 54,000 cy, is currently stockpiled on the site and needs to be hauled to and treated at to an appropriate disposal site. The inaccessible areas of the site will be remediated after the soil stockpile has been removed.

9. COMMUNITY ISSUES Strong interest in cleanup of the Site has been expressed by local residents, businesses and agencies. Community meetings have been conducted and should be continued to provide information to the community about the Site investigation and cleanup. An additional meeting should be held at the conclusion of all Site investigation and remediation. A public health risk assessment was completed for the Site by K&B, submitted to the Executive Officer on July 14, 1989, and accepted.
10. CLOSURE OF SLUDGE PONDS As of July 15, 1989, the nine sludge ponds onsite no longer accept SCVWD sludge. The ponds will be closed according to a Closure Plan acceptable to the Executive Officer; a Closure Plan has been submitted and is currently under review. Sludge in the ponds will be dried, removed from the ponds and placed in areas on the property not subject to significant infiltration from rainwater or in areas not artificially watered.
11. FUTURE SITE USE Approval and implementation of the onsite investigation and remediation tasks of this Order will allow restoration of the property to a condition where it will be suitable for development. The remaining monitoring and reporting tasks are for information and documentation of final cleanup and long term monitoring purposes. To approve Site development, the City of Milpitas is requesting the Board to provide K&B a letter approving development of the Site.
12. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives and beneficial uses for south San Francisco Bay and contiguous surface and ground waters.

13. The existing and potential beneficial uses of the groundwater underlying and adjacent to the facility include:
  - a. industrial process water supply
  - b. industrial service water supply
  - c. municipal and domestic water supply
  - d. agricultural water supply
14. The existing and potential beneficial uses of Berryessa and Lower Penitencia Creeks and South San Francisco Bay include:
  - a. industrial process water supply
  - b. navigation
  - c. recreation
  - d. commercial/sport fishing
  - e. warm fresh water habitat
  - f. areas of special biological significance
  - g. wildlife and marine habitat
  - i. fish migration
15. The discharger has caused or permitted, and threatens to cause or permit waste to be discharged or deposited where it is or probably will be discharged to waters of the State and creates or threatens to create a condition of pollution or nuisance.
16. This action is an order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15321 of the Resources Agency Guidelines.
17. The Board has notified the dischargers and interested agencies and persons of its intent under California Water Code Section 13304 to prescribe Site Cleanup Requirements for the site, and has provided them with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.
18. The Board, in a public meeting heard and considered all comments pertaining to the Site.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the dischargers shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous materials in a manner which will degrade water quality or adversely affect the beneficial uses of the waters of the State is prohibited.

2. Further significant migration of pollutants through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of pollutants are prohibited.
4. The storage, handling, treatment or disposal of soil or groundwater containing pollutants shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

B. CLEANUP SPECIFICATIONS

1. Within 60 days of the Executive Officer's determination and actual notice to Armand Kunde that K&B has failed to comply with this Order, Armand Kunde, as landowner, shall comply with this Order.
2. K&B shall conduct site investigation and monitoring activities as needed to define the current local hydrogeologic conditions, and the lateral and vertical extent of soil and groundwater pollution. Should monitoring results show evidence of pollution migration, additional site characterization shall be required.
3. Polluted soils onsite shall be cleaned to a level no greater than 5 ppm.
4. Final cleanup levels and goals for polluted groundwater identified in inaccessible areas shall be to background water quality and as specified in Finding 7.

C. PROVISIONS

1. The discharger shall comply with the Prohibitions and Specifications of this Order in accordance with the following task and time schedule:

TASK/COMPLETION DATE:

- a. TASK: ASSESS SOURCE OF MEASURED OFFSITE POLLUTION  
Description: Submit a technical report assessing the source of pollution previously measured in Berryessa and Lower Penitencia Creeks and in two monitoring wells. An additional round of surface water sampling shall be made at three sampling points in Berryessa and Lower Penitencia Creeks; one at the confluence of Berryessa and Lower Penitencia Creeks, one upstream from this junction in Berryessa Creek, and one downstream from this junction in Lower Penitencia Creek. Analyses shall be for VOCs. If onsite sources are located, they shall be remediated. The dischargers will not be required to locate or

remediate offsite sources of pollution in Berryessa and Lower Penitencia Creeks.

COMPLETION DATE: SEPTEMBER 30, 1989

b. TASK: COMMUNITY MEETINGS

Description: Due to strong local interest in the Site, the dischargers shall submit a proposal for conduct of one final evening community meeting to be held in Milpitas. The proposal shall include: 1) a description of meeting organization and conduct, 2) an example legal notice to be run in the Milpitas Post for two weeks prior to the meeting, and 3) a means of forwarding a record of public comments on Site cleanup received at the meetings to the Executive Officer.

COMPLETION DATE: SEPTEMBER 30, 1989

c. TASK: PLAN FOR STORAGE AND DISPOSAL OF STOCKPILED POLLUTED SOIL

Description: Submit a proposed plan for disposal of the 54,000 cy of polluted soil stockpiled on the Site. The plan shall specify the storage and/or final disposal location. The plan shall also indicate by what date the inaccessible areas will become accessible. If a plan for storage only is submitted, that plan shall include a time table for submittal of a final treatment and disposal plan. When a final treatment and disposal plan is submitted, that plan shall specify the location and method of treatment, present data or rationale for success of treatment and a task and time schedule through final disposal.

COMPLETION DATE: OCTOBER 31, 1989

d. TASK: INVESTIGATION OF INACCESSIBLE AREAS

Description: Submit a technical report on the investigation of soil pollution in areas of the Site currently inaccessible due to presence of sludge ponds and stockpiled soil. They shall be investigated with the same methods used for the accessible areas of the site. All onsite source areas of soil pollution shall be remediated. The report shall also include a date for submittal of a final site cleanup report.

COMPLETION DATE: WITHIN 90 DAYS AFTER ALL AREAS BECOME ACCESSIBLE

e. TASK: FINAL SITE CLEANUP REPORT

Description: Submit a technical report documenting completion of all onsite investigation and remediation actions specified in Provisions 1.a. through 1.d., and



as acceptable to the Executive Officer. The report shall include an evaluation of the effectiveness of site remediation, and a proposed groundwater sampling and analysis plan. The sampling shall use an EPA 8000-series methods, and be based upon biannual (twice yearly) sampling for the first three years, and once at the fifth year. The results of groundwater monitoring shall be reported in regular status reports.

COMPLETION DATE: AS SPECIFIED IN THE REPORT OF  
PROVISION 1.d.

- f. TASK: FIVE YEAR STATUS REPORT  
Description: Submit a technical report containing: 1) results of any additional investigative or remedial work undertaken, 2) a summary of results of all groundwater monitoring, 3) a schedule for any additional onsite work if necessary, and 4) recommended measures for reducing Board oversight based upon an evaluation of monitoring data which may verify the effectiveness of site remediation.

COMPLETION DATE: OCTOBER 30, 1994

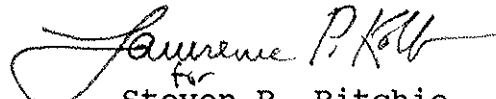
2. All technical reports submitted must be acceptable to the Executive Officer. The submittal of technical reports evaluating remedial measures shall include a projection of the cost, effectiveness, benefits, and impact on public health and the environment.
3. If the dischargers are delayed, interrupted or prevented from meeting one or more of the completion dates specified in the Order, the dischargers shall notify the Executive Officer prior to the deadline for the completion date.
4. The dischargers shall submit to the Board acceptable status reports on compliance with the requirements of this Order, and containing results of groundwater monitoring. The reports shall be submitted on a biannual basis for the first three years, then annually for the fourth and fifth years. The first biannual report shall be for the fourth calendar quarter of 1989, and the first quarter of 1990, due on April 15, 1990. Annual reports for the fourth and fifth years shall be submitted on October 15, in 1993 and 1994. Each report shall contain at least the following:
  - a. a summary of work completed since the previous status report,
  - b. a summary tabulation of all well construction data, monthly groundwater levels, and chemical analytical results for monitoring wells as specified in the sampling plan,

- c. updated piezometric maps for all aquifers monitored and pollutant isoconcentration maps as applicable,
  - d. identification of potential problems which will cause or threaten to cause noncompliance with this Order and what actions are being taken or planned to prevent these obstacles from resulting in noncompliance with this Order, and
  - e. in the event of noncompliance with the Specifications and Provisions of this Order, justification for noncompliance and proposed actions to achieve compliance.
- 5. All plans, specifications, reports, and documents shall be signed by or stamped with the seal of a registered geologist, engineering geologist, or professional engineer.
  - 6. All samples shall be analyzed by a State certified laboratory or laboratory accepted by the Board using approved EPA methods for the type of analyses to be performed. All laboratories shall maintain Quality Assurance/Quality Control records for Board review.
  - 7. The discharger shall maintain in good working order, and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.
  - 8. Copies of all correspondence, reports, and documents pertaining to compliance with this Order shall be provided to the following agencies:
    - a. Santa Clara Valley Water District
    - b. Santa Clara County Health Department
    - c. City of Milpitas
    - d. State Department of Health Services/TSCD
  - 9. The discharger shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:
    - a. Entry upon dischargers' premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
    - b. Access to copy any records required to be kept under the terms and conditions of this Order.
    - c. Inspection of any monitoring equipment or methodology implemented in response to this Order.
    - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the dischargers.
  - 10. If any hazardous substance is discharged to any waters of the

state, or discharged and deposited where it is, or probably will be discharged to any waters of the state, the discharger shall report such discharge to this Regional Board, at (415) 464-1255 on weekdays during office hours from 8 a.m. to 5 p.m., and to the Office of Emergency Services at (800) 852-7550 during non-business hours. A written report shall be filed with the Regional Board within five (5) working days and shall contain information relative to the nature of waste or pollutant, quantity involved, duration of incident, cause of spill, Spill Prevention, Control and Countermeasure Plan (SPCC) in effect, if any, estimated size of affected area, nature of effect, corrective measures that have been taken or planned, and a schedule of these activities, and persons/agencies notified.

11. The Board will review this Order periodically and may revise the requirements when necessary.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of any Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on September 20, 1989.

  
for  
Steven R. Ritchie  
Executive Officer

Attachments: Site Maps

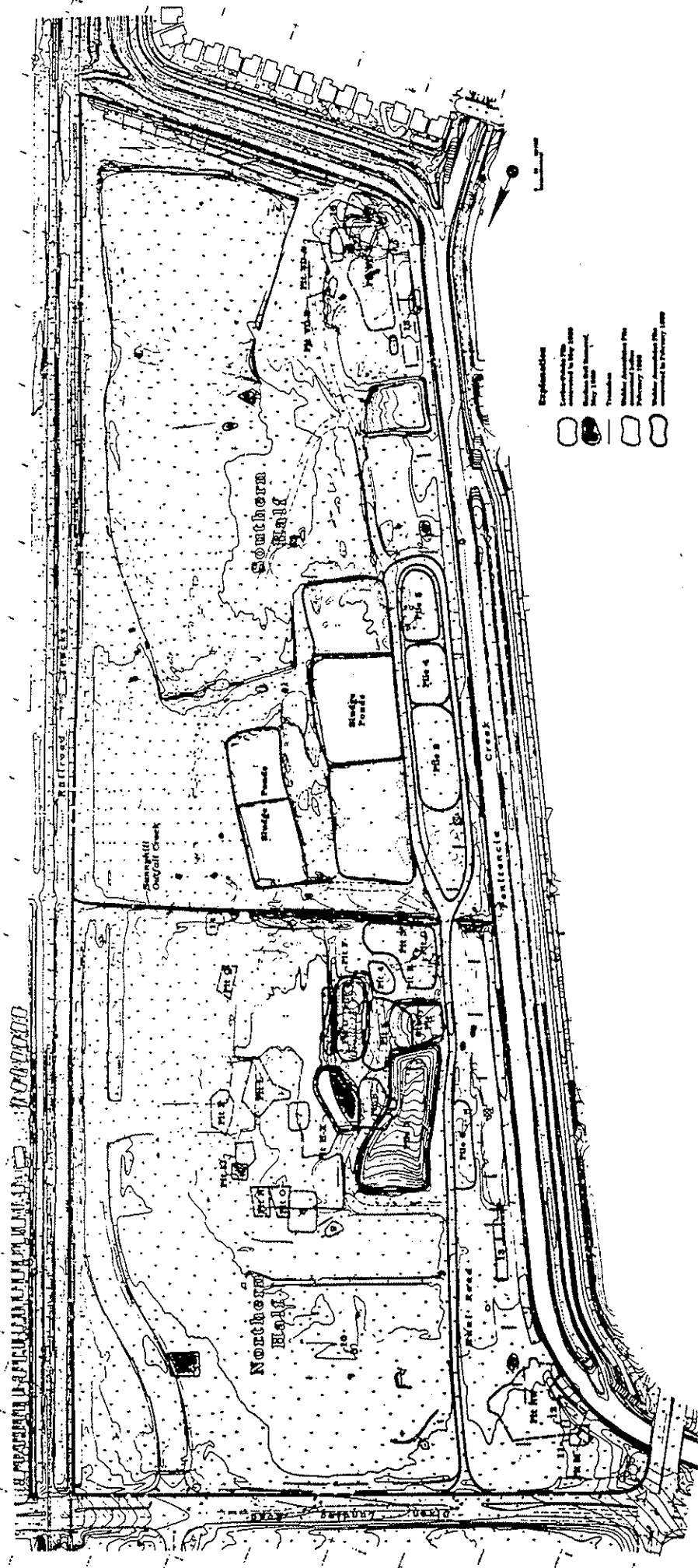


Figure 1:

# Site Map

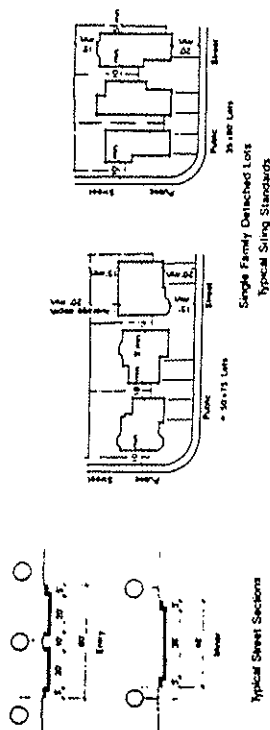
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CONSULTING ENGINEERS AND HYDROLOGISTS

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KALFMAN AND BROAD SOUTH BAY, INC.



## REVISED DEVELOPMENT PLAN



**BISSELL &  
KARN, INC.**

**Figure 2:**

**REVISED DEVELOPMENT PLAN**  
(Reprinted from EIR)

Project No. 1429

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COMPUTING ELEMENTS AND HYDROGEN OXIDES

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